

Serial No. 10/246,581
Amendment Dated 01/25/2005
Reply to Office Action Dated 08/25/2004

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) An isolated polynucleotide comprising a nucleic acid sequence selected from the group consisting of:
 - (a) a nucleic acid sequence having at least 80% sequence identity to SEQ ID NO: 3, wherein the % sequence identity is based on the entire coding region and is calculated by the GAP algorithm under default parameters, wherein the sequence encodes a polypeptide with RuvB activity; and
 - (b) a nucleic acid sequence which is fully complementary to the nucleic acid sequence of (a).
2. (Original) The isolated polynucleotide of claim 1, wherein the nucleic acid sequence has at least 85% sequence identity to SEQ ID NO: 3.
3. (Original) The isolated polynucleotide of claim 1, wherein the nucleic acid sequence has at least 90% sequence identity to SEQ ID NO: 3.
4. (Original) A recombinant expression cassette, comprising the polynucleotide of claim 1 operably linked to a promoter.
5. (Currently Amended) A host cell comprising transformed with the polynucleotide of claim 1.

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6. (Original) A transgenic plant comprising the polynucleotide of claim 1.
7. (Original) The transgenic plant of claim 6, wherein said plant is a monocot.
8. (Original) The transgenic plant of claim 6, wherein said plant is a dicot.
9. (Original) The transgenic plant of claim 6, wherein the plant is selected from the group consisting of corn, soybean, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, and millet.
10. (Original) A transgenic seed from the transgenic plant of claim 6, wherein the seed comprises the polynucleotide.
11. (Original) An isolated polynucleotide comprising a nucleic acid sequence selected from the group consisting of:
 - (a) a nucleic acid sequence encoding a polypeptide having at least 80% sequence identity of the entire length of SEQ ID NO: 4, as determined by the GAP algorithm under default parameters, wherein the encoded polypeptide has RuvB activity; and,
 - (b) a nucleic acid sequence which is fully complementary to the nucleic acid sequence of (a).
12. (Original) The isolated polynucleotide of claim 11, wherein the polynucleotide encodes a polypeptide having at least 85% sequence identity to SEQ ID NO: 4.

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13. (Original) The isolated polynucleotide of claim 11, wherein the polynucleotide encodes a polypeptide having at least 90% sequence identity to SEQ ID NO: 4.
14. (Original) A recombinant expression cassette comprising the polynucleotide of claim 11 operably linked to a promoter.
15. (Currently Amended) A host cell ~~comprising~~ transformed with the polynucleotide of claim 11.
16. (Original) The host cell of claim 15, wherein the host cell is a plant cell.
17. (Original) A transgenic plant comprising the polynucleotide of claim 11.
18. (Original) The transgenic plant of claim 17, wherein said plant is a monocot.
19. (Original) The transgenic plant of claim 17, wherein said plant is a dicot.
20. (Original) The transgenic plant of claim 17, wherein said plant is selected from the group consisting of maize, soybean, safflower, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, and millet.
21. (Original) A transgenic seed from the transgenic plant of claim 17, wherein the seed comprises the polynucleotide.

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22. (Original) A method of modulating the level of RuvB in a plant cell, comprising:
 - (a) introducing into a plant cell a recombinant expression cassette comprising the polynucleotide of claim 1 operably linked to a promoter;
 - (b) culturing the plant cell under plant cell growing conditions; and
 - (c) expressing the polynucleotide for a time sufficient to modulate the level of RuvB in the plant cell.
23. (Original) A method of modulating the level of RuvB in a plant, comprising:
 - (a) introducing into a plant cell a recombinant expression cassette comprising the polynucleotide of claim 1 operably linked to a promoter;
 - (b) culturing the plant cell under plant cell growing conditions;
 - (c) regenerating a transformed plant comprising the polynucleotide; and
 - (d) expressing the polynucleotide for a time sufficient to modulate the level of RuvB in the plant.
24. (Original) The method of claim 23, wherein the plant is maize.
25. (Original) A method of modulating the level of RuvB in a plant cell, comprising:
 - (a) introducing into a plant cell a recombinant expression cassette comprising the polynucleotide of claim 11 operably linked to a promoter;
 - (b) culturing the plant cell under plant cell growing conditions; and
 - (c) expressing the polynucleotide for a time sufficient to modulate the level of RuvB in the plant cell.

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26. (Original) A method of modulating the level of RuvB in a plant, comprising:
 - (a) introducing into a plant cell a recombinant expression cassette comprising the polynucleotide of claim 11 operably linked to a promoter;
 - (b) culturing the plant cell under plant cell growing conditions;
 - (c) regenerating a transformed plant comprising the polynucleotide; and
 - (d) expressing the polynucleotide for a time sufficient to modulate the level of RuvB in the plant.
27. (Original) The method of claim 26, wherein the plant is maize.